0.00

Memo

QC

Quality Control

Ju 12-11-11

											DQA:	Date:	
NCR:	Yes	/ No				WORK ORDER NON-C	CONI	FORM	//ANCE / UF	PDATE	QA Closed:	Date:	
Work Orde	or:					DISPOSITION				AGAINST DE			
Part f	- - No.					Rework Scrap Use-as-is Work Order Update		Therm	Skid-tube Machining noforming Large Fab	Crosstube Small Fab Finishing Composite	-	Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
D					Dagari	ation of work and an undata	l	itial	Δ.	ction	Cian 0		
Root		Data	Ston	Ott	l '	ption of work order update or Non-conformance	4	ef Eng			Sign & Date	Verification	QC Inspector
Cause Doc/Data	$r + \frac{1}{2}$	Date	Step	Qty		of Non-comormance	Cine	er cing	Des	cription	Date	vermeation	QC HISPECTOI
Equip/Tooling	Н												
Operator	Н												:
Material	H												
Setup	Н												
Other	H	:											,
Process	П												
Supplier	П												
Training													
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Landi	ng G	ear				General					-		
	Ш	Bending				Bend		Grain			Ovalized		Pressure/Forced
	Ш	Centre No	t Concer	ntric to	o/s	BOM/Route	∐⊦	lardwa	re	_	Over/Under	tolerance	Temperature/Cure
	Ш	Cracks				Broken/Damaged		nspecti	on Incomplete		Part Incorre	ct	Weld
	Ш	Crushed/0	Crimped.			Burrs	<u> </u>	nstruct	ions Incomplete	/Unclear	Part Lost/M	issing	Wrong Stock Pulled
		Cuffs				Contamination		∕lainte	nance	_	Part Moved		
	Ш	Heat Trea	t		L	Countersink		∕Iislabe	led .		Positioned \	Wrong	· •
		Inspection	Strip in	Tube		Cut Too Short	N	∕lisreac	1		Power Loss/	'Surge	Other

Offset

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Torque Waves in Extrusion

Drill Holes

Drawing

Finish

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Order ID 92525 Page 2 October-31-12 11:32:12 AM Item ID: 647.1818 Accept *N900040100* Setup Start **Revision ID:** Nose Door Spacer Item Name: Start Qty: 1.00 10/31/12 Start Date: **Cust Item ID:** Required Date: 11/13/12 Req'd Qty: 1.00 **Customer:** Reference: Run Start Tooling: Process Plan: Date: Date: Approvals: Stop SPC (Y/N): QC: Date: Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Accept Reject Reject Insp. Work Center ID Description Code Qty Qty Number Stamp **Run Hours** 130 QC8- Inspect parts - second check 0.00 *130* Memo Quality Control 0.00 *140* Small Fab 0.00 Memo Small Fab **ROLL SHEET AS PER TEMPLATE** 150 QC5- Inspect part completeness to step on W/O 0.00QC 0.00 Memo

DIE

Quality Control

											DQA:	Date:	
NCR:	Yes	/ No				WORK ORDER NON-	CON	FORM	MANCE / UP	DATE			
 						·				······································	QA Closed:	Date:	
Work Orde	er:					DISPOSITION				AGAINST DE	PARTMENT	/PROCESS	
	-				· · · · · · · · · · · · · · · · · · ·	Rework	7		Skid-tube	Crosstube		Water Jet	Engineering
Part I	No.					Scrap] [ľ	Machining	Small Fab	Pro	d. Eng. Coor.	Quality
						Use-as-is			noforming	Finishing	Rec/Sto	re/Packaging	Other
NCR f	No					Work Order Update	╛┃		Large Fab	Composite		Supplier	
Root	Ī	·	1		Descri	I ption of work order update	l	itial	Ac	ction	Sign &		
Cause	ŀ	Date	Step	Qty		or Non-conformance	ŀ	ef Eng	l	cription	Date	Verification	QC Inspector
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1	Part No. NCR No. Date Step Qty Data Tooling Intor Diss ier Ing Ing Ing Ing Ing Ing Ing Ing Ing Ing				1	Bend	1 (Grain			Ovalized		Pressure/Forced

Hardware

Maintenance

Out of Calibration

Out of Sequence

Outside Dimensions

Mislabeled

Misread

Offset

Inspection Incomplete

Instructions Incomplete/Unclear

Over/Under tolerance

Part Incorrect

Part Moved

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

Temperature/Cure

Wrong Stock Pulled

Weld

Other

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Cracks

Cuffs

Heat Treat

Crushed/Crimped.

Inspection Strip in Tube

Torque Waves in Extrusion

Centre Not Concentric to O/S

BOM/Route

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Burrs

Broken/Damaged

Work Orde October-31-12				*9252	25*							Page 3
Item ID: Revision ID: Item Name:	647.1818 Nose Door S	pacer		Accept	*N 900	<u>040</u>	100)*	Setup	Start Stop	*N:	S1* S2*
Start Date: Required Date: Reference:	10/31/12	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item l Customer:	ID:					14.	12
Approvals:		an:				ate:			Run	Start Stop		R1* R2*
Sequence ID/ Work Center II 160 *160* Outsource4 Outsource process -		Operation Description Outsource process-Anod Memo ISSUE P/O:	ize per QSI017 4.1.10.1	Set Up/ Run Hours 0.00	Tool ID	Tool#	Plan Code	Accept Qty	Rej Qty		Reject Number	Insp. Stamp
170 *170* Packaging Packaging				AS PER DWG.(SEE NOTE 2 0.00 0.00	2)				- /-	-12] Hofir	()
¹⁸⁰ *18∩* ^{QC}		QC5- Inspect part compl	eteness to step on W/O	0.00								0AS 05 9-89 12.18

Memo

Quality Control

											DQA:	Date:		
NCR:	Yes	/ No				WORK ORDER NON-	COI	VFORM	MANCE / UP	DATE		_		
				. 				_			QA Closed:	Date:		
Nork Ord	er:					DISPOSITION				AGAINST DE	PARTMENT	PROCESS		
						Rework	7		Skid-tube	Crosstube		Water Jet	Engineering	
Part	No.	<u> </u>				Scrap			Machining	Small Fab	-∤	d. Eng. Coor.	Quality	
NCD						Use-as-is	4		noforming	Finishing	Rec/Stor	re/Packaging	Other	
NCR	NO.			- \		Work Order Update			Large Fab	Composite]	Supplier		
Root					Desc	ription of work order update		nitial	Ac	Action				
Cause		Date	Step	Qty		or Non-conformance	Ch	ief Eng	Desc	cription	Date	Verification	QC Inspector	
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napproved							<u> </u>							
						F	AUL	T CATE	GORY					
Land	ng (Gear			_	General		_			_		_	
	L	Bending				Bend		Grain			Ovalized		Pressure/Forced	
		Centre No	ot Concer	ntric to	o/s	BOM/Route	_	Hardwa			Over/Under	 	Temperature/Cure	
	L	Cracks			-	Broken/Damaged	\perp	1	on Incomplete		Part Incorre		Weld	
	<u> </u>	Crushed/0	Crimped.		-	Burrs	<u> </u>	1	ions Incomplete/	'Unclear	Part Lost/Mi	ssing	Wrong Stock Pulled	
	<u> </u>	Cuffs			-	Contamination	-	Mainte		ļ	Part Moved			
	-	Heat Trea		TL -	-	Countersink	\vdash	Mislabe		<u> </u>	Positioned V		ا ا	
	Inspection Strip in Tube Ripples in Bend					Cut Too Short Drill Holes	\vdash	Misread	l	<u>L</u>	Power Loss/	Surge	Other	
	\vdash	Torque W		vtrucia	<u> </u>		-	Offset	alihuati					
	\vdash	Turning Se		.xtru5101	'' -	Drawing Finish	-	ł	Calibration					
		i arrillig Se	equence		1	[ransn	ı	Jour or S	equence					

Outside Dimensions

Wave/Twist in Tube

Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde October-31-12				*925	525*							Page 4
Item ID: Revision ID: Item Name:	647.1818 Nose Door S	pacer		Accept	*N900	040	100) *	Setup	Start Stop	*N:	S1* S2*
Start Date: Required Date: Reference:	10/31/12 11/13/12	Start Qty: 1.00 Req'd Qty: 1.00	*1* *1*		Cust Item Customer:							
Approvals:		an:		_ 0 _		ate:		1	Run	Start Stop		R1* R2*
Sequence ID/ Work Center II 190 *100* SprayPaint Spray Painting)			Set Up/ Run Hours 0.00 0.00 CLASS N AS PER DWG.	Tool ID (SEE NOTE 2)	Tool#	Plan Code	Accept Qty	Qty		Reject Number	Insp. Stamp
200 *200* QC Quality Control		CARDINAL QC14- Inspect Spray Pai Memo	, 4860-50 PRIMER BAT(0.00 0.00				1				05 13 01 0
210 *210* Packaging		Identify as per dwg & Sto	ock Location: 135C	0.00					61	3/o1/	<u> </u>	<u></u>

IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV

Packaging

NCR:	Yes	/	No

NCR No.

Root

Cause
Doc/Data
Equip/Tooling
Operator
Material
Setup
Other
Process
Supplier
Training
Unapproved

Work Order:

Date

Part No.

Step

Qty

WORK ORDER NON-CONFORMANCE / UPDATE

Initial

Chief Eng

Skid-tube

Machining

Large Fab

Thermoforming

DISPOSITION

Work Order Update

Description of work order update

or Non-conformance

Rework

Use-as-is

Scrap

UPDATE	DQA:	Date:	
OI DAIL	QA Closed:	Date:	
AGAINST DE	PARTMENT/	/PROCESS	
Crosstube Small Fab Finishing Composite		Water Jet d. Eng. Coor. re/Packaging Supplier	Engineering Quality Other
Action Description	Sign & Date	Verification	QC Inspector

			FAU	LICATEGORY		
Landing	g Gear	General		_		_
	Bending	Bend		Grain	Ovalized	Pressure/Forced
	Centre Not Concentric to O/S	BOM/Route		Hardware	Over/Under tolerance	Temperature/Cure
	Cracks	Broken/Damaged		Inspection Incomplete	Part Incorrect	Weld
	Crushed/Crimped_	Burrs		Instructions Incomplete/Unclear	Part Lost/Missing	Wrong Stock Pulled
	Cuffs	Contamination		Maintenance	Part Moved	
	Heat Treat	Countersink		Mislabeled	Positioned Wrong	 _
	Inspection Strip in Tube	Cut Too Short		Misread	Power Loss/Surge	Other
	Ripples in Bend	Drill Holes		Offset	 	
	Torque Waves in Extrusion	Drawing		Out of Calibration		
	Turning Sequence	Finish		Out of Sequence		
	Wave/Twist in Tube	Folio		Outside Dimensions		

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Work Orde				*925	525*						Page 5
Item ID: Revision ID:	647.1818			Accept	*N900	040	100)* s	etup St		VS1*
Item Name: Start Date: Required Date: Reference:	Nose Door S 10/31/12 11/13/12	Start Qty: 1,00 Req'd Qty: 1.00	*1* *1*		Cust Item I Customer:	D:				~ ~ [NS7"
Approvals:	Process P QC:	lan:	Date:	Tooling: SPC (Y/N):		ate:		F		art * top *	NR1* NR2*
Sequence ID/ Work Center II 220 *720* QC Quality Control	D	Operation Description QC21- Final Inspection Memo	Work Order Release	Set Up/ Run Hours 0.00	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Numb	

								DQA:	Date:	
/ No				WORK ORDER NON-C	ONFOR	MANCE / UF		QA Closed:	Date:	٠.
				DISPOSITION			AGAINST DE	PARTMENT	/PROCESS	
				Rework Scrap Use-as-is Work Order Update		Machining Small Fab Prod. Eng. Coor. Thermoforming Finishing Rec/Store/Packaging Supplier Supplier				Engineering Quality Other
			Descri	ption of work order update	Initial	Ad	ction	Sign &		
Date	Step	Qty		or Non-conformance	Chief Eng	Desc	cription	Date	Verification	QC Inspector
			:							
						1				
				Descri	DISPOSITION Rework Scrap Use-as-is Work Order Update Description of work order update	DISPOSITION Rework Scrap Use-as-is Work Order Update Description of work order update Initial	DISPOSITION Rework Scrap Machining Use-as-is Thermoforming Large Fab Description of work order update Initial Advanced Actions DISPOSITION Skid-tube Machining Thermoforming Large Fab	DISPOSITION Rework Skid-tube Crosstube Machining Small Fab Thermoforming Finishing Work Order Update Large Fab Composite Description of work order update Initial Action	WORK ORDER NON-CONFORMANCE / UPDATE QA Closed: DISPOSITION Rework Scrap Use-as-is Work Order Update Description of work order update Description of work order update WORK ORDER NON-CONFORMANCE / UPDATE QA Closed: AGAINST DEPARTMENT, Skid-tube Machining Small Fab Pro Rec/Store Large Fab Composite Description of work order update Initial Action Sign &	WORK ORDER NON-CONFORMANCE / UPDATE QA Closed: Date: DISPOSITION Rework Skid-tube Crosstube Water Jet Machining Small Fab Prod. Eng. Coor. Use-as-is Work Order Update Large Fab Composite Supplier Description of work order update Initial Action Sign &

Landing Gear General Bending Bend Grain Ovalized Pressure/Forced BOM/Route Centre Not Concentric to O/S Over/Under tolerance Temperature/Cure Hardware Broken/Damaged Cracks Inspection Incomplete Part Incorrect Weld Crushed/Crimped. Burrs Instructions Incomplete/Unclear Wrong Stock Pulled Part Lost/Missing Cuffs Contamination Maintenance Part Moved Heat Treat Countersink Mislabeled Positioned Wrong Inspection Strip in Tube Cut Too Short Misread Power Loss/Surge Other Ripples in Bend Drill Holes Offset Torque Waves in Extrusion Drawing Out of Calibration Finish Turning Sequence Out of Sequence Wave/Twist in Tube Folio Outside Dimensions

FAULT CATEGORY

Training Unapproved

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Picklist Print

October-31-12 11:32:11 AM

Work Order ID:

92525

Parent Item:

647.1818

Parent Item Name:

Nose Door Spacer

Start Date: 10/31/12

Required Date: 11/13/12

Page 1

Start Qty: 1.00

Required Qty: 1.00

Comments:

IPP REV:A 12 10 03 NEW ISSUE DD VERE:IES

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
12024T3S0.190		Purchased	No			110	sf	48.0000	0.057	20.06			¥a
024-T3 .190 sheet									52 2 2 2 3 3 3 5 5 5 5 5 5 5 5 5 5 5 5 5	0.1	***** * * * * * * * * * * * * * * * *		Jmiz
				Location		Loc Qty	Lo	oc Code					
				MAT019		48							
				123	305	48			13-3	305			

												[QA:	Dat	te: _	•
NCR:	Yes	/ No					WORK ORDER NON-C	O	VFORM	/IANCE / UP	DATE					3 .
			-			_						QA Clo	sed:	Dat	te:	
Nork Ord	er:						DISPOSITION				AGAINST [DEPARTIV	IENT,	/PROCESS		
Part							Rework Scrap		ľ	Skid-tube Machining	Crosstube Small Fab			Water Jet d. Eng. Coor.		Engineering Quality Quality
NCR	No.						Use-as-is Work Order Update	_		noforming Large Fab	Finishing Composite	Ked	:/Sto	re/Packaging Supplier		Other
Root				1	Desc	rip	otion of work order update		Initial Action			Sign	&		- 1	
Cause		Date	Step	Qty		C	or Non-conformance	Cr	ief Eng	Desc	ription	Dat	te	Verification	n	QC Inspector
oc/Data quip/Tooling perator laterial etup ther rocess upplier raining napproved							E.	A111	T CATE	CORV						
Land	ing (Gear					······································	AUI	. CATE	JORT		<u> </u>				<u></u>
Land	ing (1			٢	_	General Bend	_	Grain		Г	Ovalize	ad	1		Pressure/Forced
	Bending Centre Not Concentric to O/S						BOM/Route	\vdash	Hardwa	re	-			tolerance	${f H}$	Temperature/Cure
	Cracks						Broken/Damaged			on Incomplete	-	Part In				Weld
		Crushed/0	Crimped.		ŀ		Burrs		i i	ions Incomplete/	'Unclear	Part Lo			-	Wrong Stock Pulled
		Cuffs	•		Ì		Contamination		Mainte			Part M				
	Heat Treat						Countersink		Mislabe		Ţ	Positio				
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	Torque Waves in Extrusion						Drawing		1	Calibration				.		

Out of Sequence

Outside Dimensions

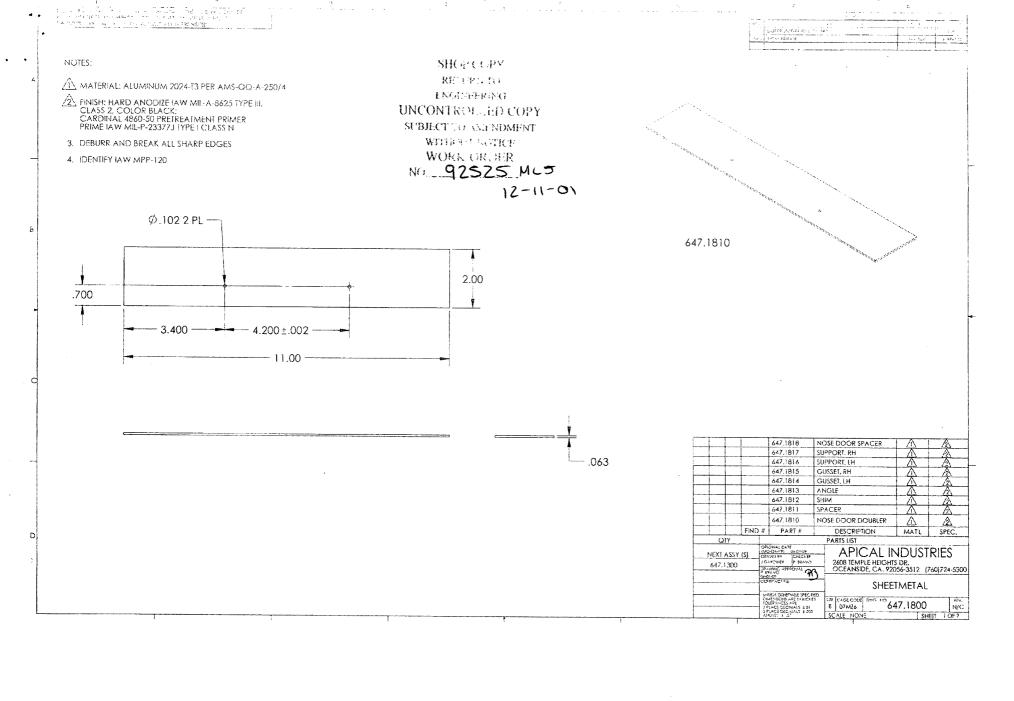
Turning Sequence

Wave/Twist in Tube

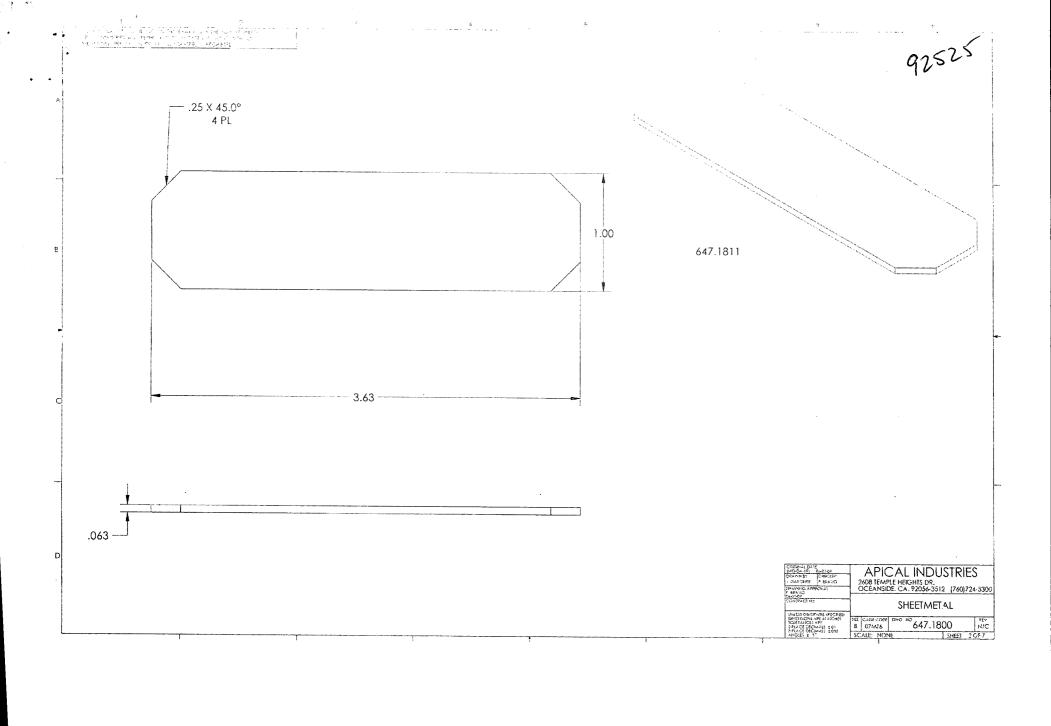
Finish

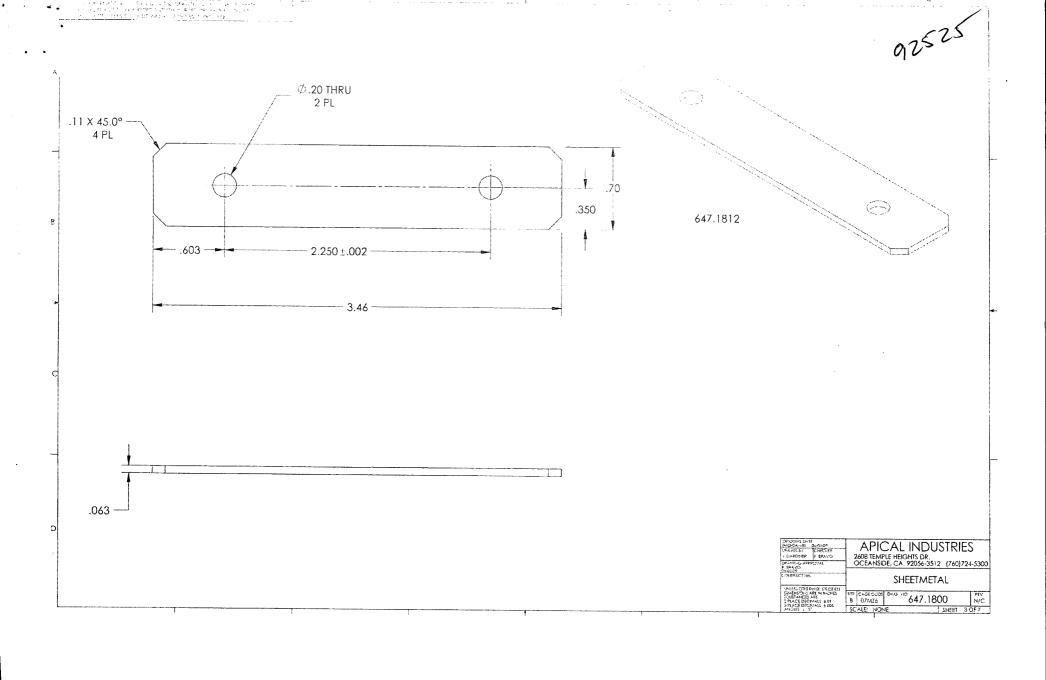
Folio

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

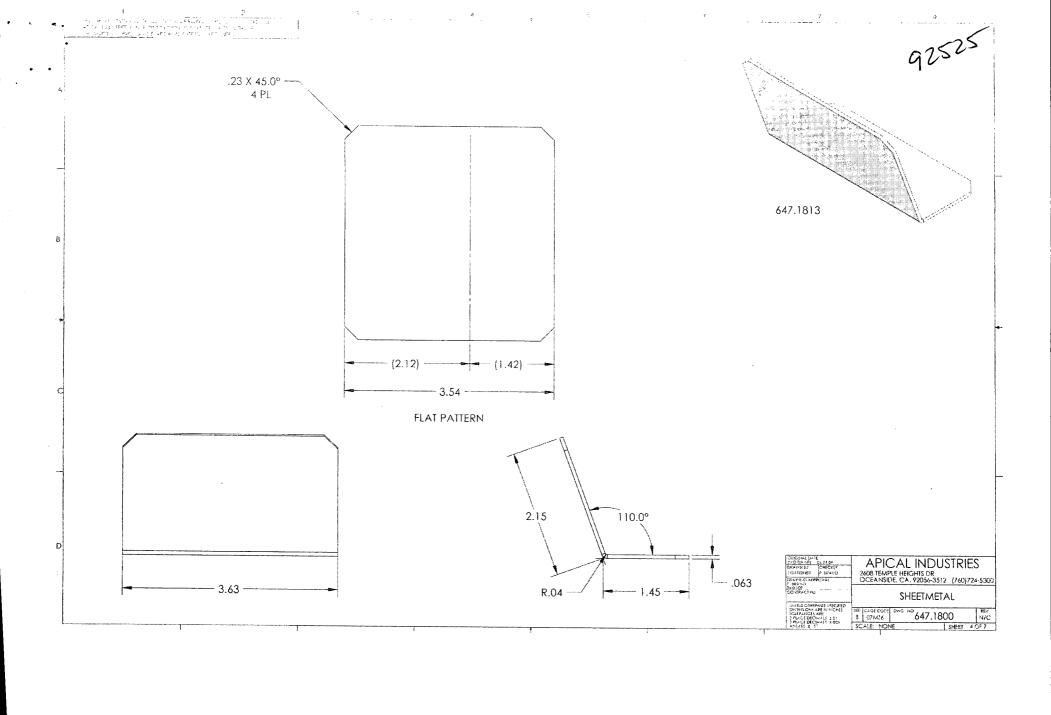


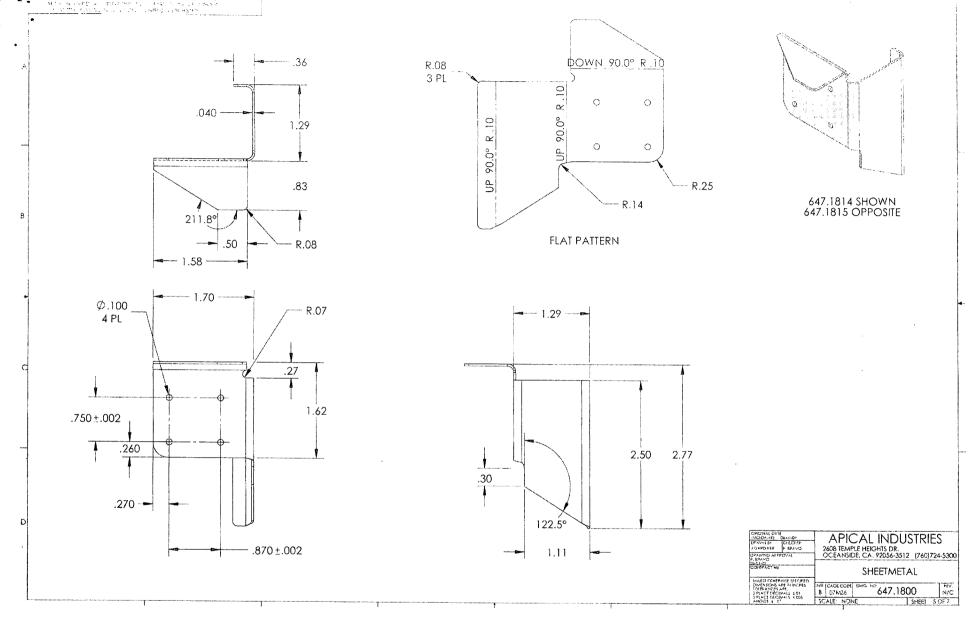
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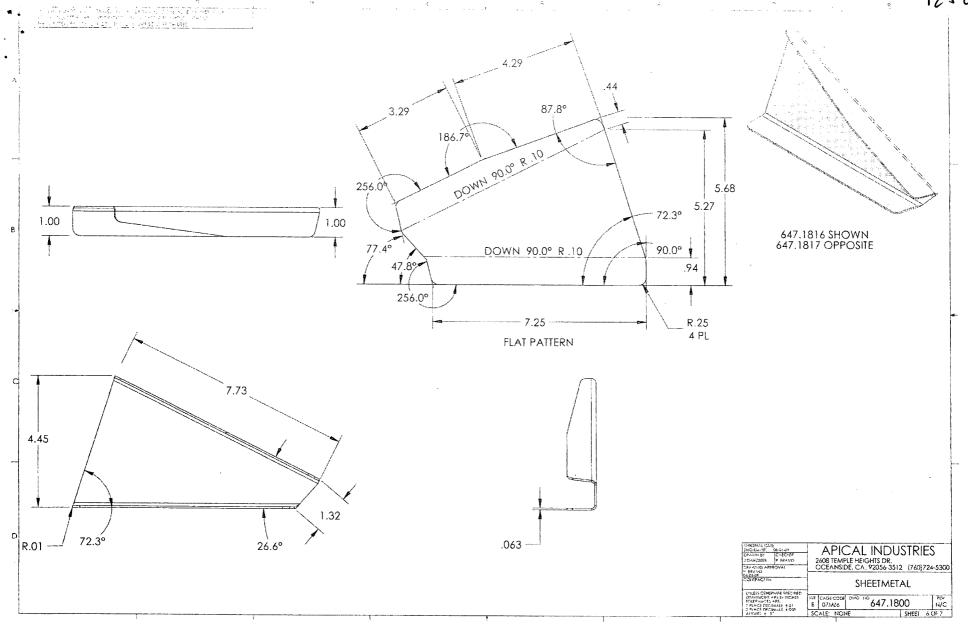


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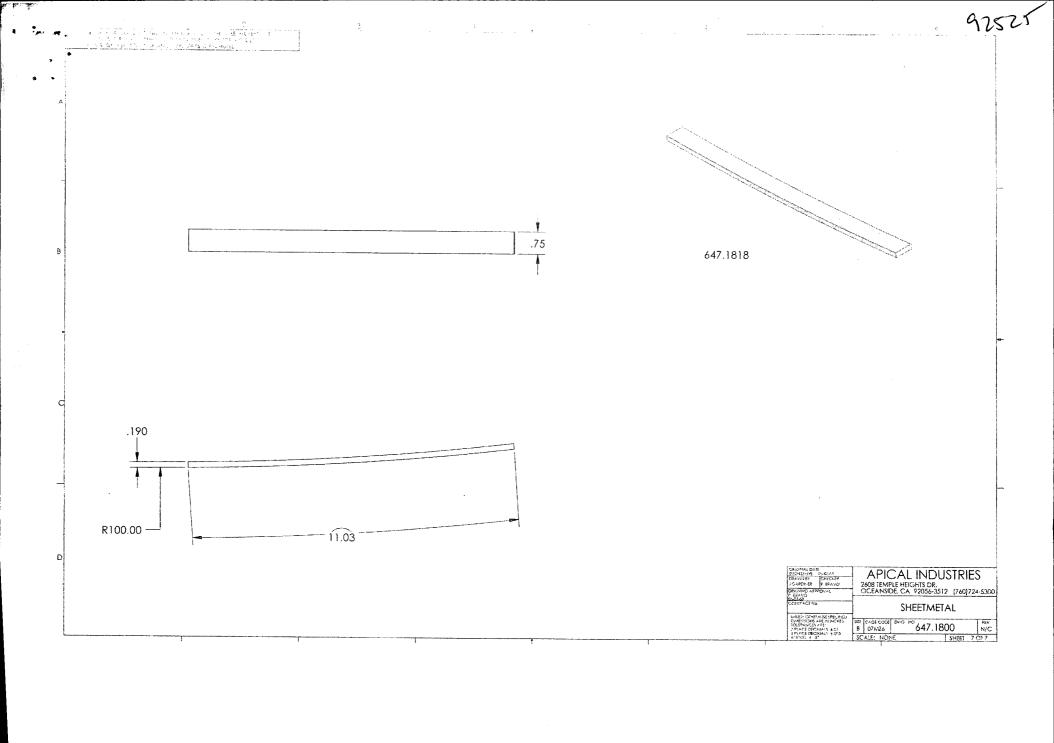




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DART AEROSPACE LTD	Work Order:	92525	
Description: Nose Dow Spacer	Part Number:	647.1818	
Inspection Dwg: 647.1800 Rev: W/C		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.75" 13 ^{tt-03} "	+1-0.010"	0.758"	_		ν.	Podusor
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Measured by: Jm	Audited by:	15	Preliminary Approval:	
Date: 12-11-11	Date:	10 Mm/B	Date:	

Rev	Date	Change	٠.		Revised by	Approved
E	10.04.14	Added preliminary approval		美養 34 4	KJ	



A.T.G. Industries Inc. 731, rue Industrielle Rd. PLATING DEPARTMENT Rockland, On K4K 1T2 Canada

Ph: (613) 446-4544 Fax: (613) 446-4556

Pack List

Number: 62107

Date: 12-Dec-12

То

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 Canada

Ship To

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

ns		Ship Via		
113	:	Snip via	·	
Quantity	Description	<u> </u>		
1	Part: ASST		Rev:	
lot	F			
- 1	8 PCS 647.1610			
ĺ	5 PCS 647.1612			
1	2 PCS 647.1713			
	6 PCS 647.1811			
Ì	PC 647.1816 PC 647.1817			
ļ	8 PCS 647 1818 1 +1 +6			
1	11 PCS 646.3210			
1	20 PCS 646.3313	•		
	10 PCS 646.3717			
1	20 PCS 646.3717			
	16 PCS 647.4610 10 PCS 649.4811			
	10 PCS 649.4812			
	24 PCS 649.4814			
	30 PCS 649.4815			
	6 PCS 647.7913			
	3 PCS 647.7919 10 PCS 647.9010			
	10 PCS 647.9010			
	15 PCS 647.9012			
i	40 PCS 647.9013			
	60 PCS 646.9710			
	HARD ANODIZE BLACK			
	MIL-A-8625 TYPE III CLASS 2			
	Job: 20120768	PO: PO18506	Line:	
	Certificate of Co	nformance		
	A.T.G. Industries certifies that all items	s in this shipment are in con	formance	
	with all requirements, specifications an	d drawings referenced in the	e purchase order.	
	ISO 9001 : 2008 RE ATG SALES-2010 T			
	1 - / /	FLAMO WELFT	/	7
	DATE: 12/12/12			
	<u> </u>	······································		
		Page 1 of 2	l .	



DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 Canada

A.T.G. Industries Inc. 731, rue Industrielle Rd. PLATING DEPARTMENT Rockland, On K4K 1T2 Canada

Ph: (613) 446-4544 Fax: (613) 446-4556

Pack List

Number: 62107

Date: 12-Dec-12

Ship To

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 Canada

Ph: 613-632-5200

То

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

11. 613-632-5	400 Fax: 613-632-118	J	Ph: 613-632-5200	Fax: 613-632-1185
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